UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,128	05/24/2001	Filips Van Liere	NL 000279	1112

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EXAMINER
YANG, RYAN R

ART UNIT	PAPER NUMBER
2672	13

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/864,128	VAN LIERE, FILIPS
	Examiner	Art Unit	
	Ryan R Yang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 January 2004</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-13</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-13</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

1/23/2004 has been entered.

2.   This action is responsive to communications: Amendment, filed on 1/23/2004.

This action is non-final.

3.   Claims 1-13 are pending in this application. Claims 1, 7 and 13 are independent

claims. In the Amendment, filed on 1/23/2004, claims 1, 7 and 13 were amended.

        This application claims foreign priority dated 5/24/2000.

4.   The present title of the invention is "Method and apparatus for shorthand

processing of medical image, wherein mouse positionings and/or actuations will

immediately control inherent image processing functions, and a pertinent computer

program" as filed originally.

Claim Rejections - 35 USC § 103

5.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

6.   Claims 1, 3-5, 7, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chekerylla (6,084,598).

As per claim 1, Chekerylla discloses a method for providing and processing a

cursored user interaction with a spatially displayed medical image and performing

image processing on said medical image, said method comprises the steps of:

providing a menu-less graphical interface having a plurality of sensitive areas

positioned at predetermined relative positions with respected to an associated medical

image display field (Figure 14 is a layout of a predetermined relative positions of user

controls from mouse operations), wherein each of the plurality of sensitive areas is

associated with one of a plurality of different cursors ("Figure 14 portrays exemplary

cursor shapes during mode changes", column 4, line 25-26); and

controlling a mouse configured such that positionings of said mouse within each

of said plurality of sensitive areas causes display of one of the plurality of different

cursors and allows activation and control of a plurality of inherent processing

functionalities respectively associated with each of said plurality of sensitive areas

("FIG. 14 shows how when the application is in stretch mode, the shape of the cursor

depends upon the location of the cursor relative to the region and the box that contains

the region. When the cursor 1401 is inside the image window 1404 and outside of the

box 1405 containing the region 1406 ... assume the shape of a pen ... When the cursor

1402 is inside the image window 1407 and on an edge of the box 1408 containing the

region 1409 ... the shape of a double-headed arrow to convey to the user that if the

mouse is moved with the mouse button pressed, the region is stretched. When the

cursor 1403 is inside the image window 1410 and inside the box 1411 containing the region 1412 ... the shape of a hand to convey to the user that if the mouse is moved with the mouse button pressed, a copy of the region is dragged to another location", column 14, line 22- 44).

As for medical image display field, since medical image is a genre of image, it would have been obvious to one of ordinary skill in the art to extend the application to medical image in order to easily manipulate a medical image.

7.   As per claim 3, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra, and further discloses selecting image mirror or rotation transformations (Figure 5).

8.   As per claim 4, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra, and further discloses selecting image zoom or pan transformations (Figure 14 1402 and 1410).

9.   As per claim 5, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra, and further discloses selecting shutter masking of the display field ("the computer program ... uses bitmap masks to apply the changes to an irregular section of the whole image", column 8, line 7-12).

10.   As per claim 7, Chekerylla discloses an apparatus for providing and processing cursored user interactions with a spatially displayed medical image and for producing graphics related data on said medical image, said apparatus comprises:

menu-less graphical interface having a plurality of sensitive areas positioned at predetermined relative positions with respect to an associated medical image display

field (Figure 14 is a layout of a predetermined relative positions of user controls from mouse operations), wherein each of the plurality of sensitive areas is associated with one of a plurality of different cursors (Figure 14 portrays exemplary cursor shapes during mode changes", column 4, line 25-26);

a mouse configured such that positionings of said mouse within each of said plurality of sensitive areas causes display of one of the plurality of different cursors and allows activation and control of a plurality of inherent processing functionalities respectively associated with each of said plurality of sensitive areas ("FIG. 14 shows how when the application is in stretch mode, the shape of the cursor depends upon the location of the cursor relative to the region and the box that contains the region. When the cursor 1401 is inside the image window 1404 and outside of the box 1405 containing the region 1406 ... assume the shape of a pen ... When the cursor 1402 is inside the image window 1407 and on an edge of the box 1408 containing the region 1409 ... the shape of a double-headed arrow to convey to the user that if the mouse is moved with the mouse button pressed, the region is stretched. When the cursor 1403 is inside the image window 1410 and inside the box 1411 containing the region 1412 ... the shape of a hand to convey to the user that if the mouse is moved with the mouse button pressed, a copy of the region is dragged to another location", column 14, line 22-44); and

display means dimensioned for displaying said medical image and said menu-less graphical interface (Figure 14).

As for medical image display field, since medical image is a genre of image, it would have been obvious to one of ordinary skill in the art to extend the application to medical image in order to easily manipulate a medical image.

11.   As per claim 9, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra, and further discloses having selection means for selecting image mirror or rotation transformations (Figure 5).

12.   As per claim 10, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra, and further discloses having selection means for selecting image zoom or pan transformations (Figure 14 1402 and 1410).

13.   As per claim 11, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra, and further discloses having selection means for selecting edged shutter masking of the display field ("the computer program ... uses bitmap masks to apply the changes to an irregular section of the whole image", column 8, line 7-12).

14.   As per claim 13, Chekerylla discloses a machine-readable computer program (column 4, line 31-33), said program being arranged for processing a cursored user interaction with a spatially displayed medical image and performing image processing on said medical image, said method comprises the steps of:

providing a menu-less graphical interface having a plurality of sensitive areas positioned at predetermined relative positions with respected to an associated medical image display field (Figure 14 is a layout of a predetermined relative positions of user controls from mouse operations), wherein each of the plurality of sensitive areas is

associated with one of a plurality of different cursors (Figure 14 portrays exemplary

cursor shapes during mode changes", column 4, line 25-26); and

controlling a mouse configured such that positionings of said mouse within each

of said plurality of sensitive areas causes display of one of the plurality of different

cursors and allows activation and control of a plurality of inherent processing

functionalities respectively associated with each of said plurality of sensitive areas

("FIG. 14 shows how when the application is in stretch mode, the shape of the cursor

depends upon the location of the cursor relative to the region and the box that contains

the region. When the cursor 1401 is inside the image window 1404 and outside of the

box 1405 containing the region 1406 ... assume the shape of a pen ... When the cursor

1402 is inside the image window 1407 and on an edge of the box 1408 containing the

region 1409 ... the shape of a double-headed arrow to convey to the user that if the

mouse is moved with the mouse button pressed, the region is stretched. When the

cursor 1403 is inside the image window 1410 and inside the box 1411 containing the

region 1412 ... the shape of a hand to convey to the user that if the mouse is moved

with the mouse button pressed, a copy of the region is dragged to another location",

column 14, line 22-44); and

controlling outputting representations of said processing functionalities (Figure

14).

As for medical image display field, since medical image is a genre of image, it

would have been obvious to one of ordinary skill in the art to extend the application to

medical image in order to easily manipulate a medical image.

15.   Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chekerylla as applied to claim 1 above, and further in view of Motzer (6,301,512).

As per claim 2, Chekerylla demonstrated all the elements as applied to the

rejection of independent claim 1, supra.

Chekerylla discloses a method of modifying graphic image through mouse

actuation. It is noted that Chekerylla does not explicitly disclose the function of selecting

grey range and/or color range windowing through geometrical mouse positioning,

however, this is known in the art as taught by Motzer. Motzer discloses a graphical

display system in which the color range of the image can be adjusted through mouse

actuation (Figure 13C 392).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Motzer into Chekerylla because

Chekerylla discloses a method of modifying graphical image through mouse actuation

and Motzer discloses the color of the image can be adjusted in order to better

understand the resulted image.

16.   As per claim 8, Chekerylla demonstrated all the elements as applied to the

rejection of claim 7, supra.

Chekerylla discloses an apparatus of modifying graphic image through mouse

actuation. It is noted that Chekerylla does not explicitly disclose the function of selecting

grey range and/or color range windowing through geometrical mouse positioning,

however, this is known in the art as taught by Motzer. Motzer discloses a graphical

display system in which the color range of the image can be adjusted through mouse

actuation (Figure 13C 392).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Motzer into Chekerylla because

Chekerylla discloses an apparatus of modifying graphical image through mouse

actuation and Motzer discloses the color of the image can be adjusted in order to better

understand the resulted image.

17.   Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chekerylla as applied to claim 1 above, and further in view of Goldberg et al.

(5,963,203).

As per claim 6, Chekerylla demonstrated all the elements as applied to the

rejection of independent claim 1, supra.

Chekerylla discloses a method of modifying graphic image through mouse

actuation. It is noted that Chekerylla does not explicitly disclose the function of

selectably navigating through a sequence of images that base on marginal stepping

with respect to an imaged object, however, this is known in the art as taught by

Goldberg et al., hereinafter Goldberg. Goldberg discloses a method of viewing a

sequence of image in which "selection of basic frames/objects for the root image,

extractable objects and the like by stepping slowly through the video sequence and, for

example, using a mouse to place a cursor on frames or points of frames which are of

interest", column 14, line 14-18.

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Goldberg into Chekerylla because

Chekerylla discloses a method of modifying graphic image through mouse actuation

and Goldberg discloses a method of stepping a sequence of stored images in order to

increase the viewing options of the images.

18.   As per claim 12, Chekerylla and Goldberg demonstrated all the elements as

applied to the rejection of claim 8, supra, Goldberg further discloses having navigation

means for selectably navigating through a sequence of images that base on marginal

stepping with respect to an imaged object (Figure 2).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Goldberg into Chekerylla because

Chekerylla discloses a method of modifying graphic image through mouse actuation

and Goldberg discloses a method of stepping a sequence of stored images in order to

increase the viewing options of the images.

Response to Arguments

19.   Applicant's arguments filed 1/23/2004 have been fully considered but they are

not persuasive.

Applicant alleges Chekerylla does not teach "different areas of a graphical

interface are associated with one of a plurality of different cursors" and "positionings of a

mouse within an area of the graphical interface causes display of one of the plurality of

different cursor". In replay, examiner notes Chekerylla discloses such limitations in

Figure 14 and column 14, line 22-44.

Conclusion

20.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-**

6133.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.
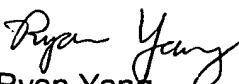

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 305-47000377.

Ryan Yang
April 5, 2004